



Montana Department of  
**ENVIRONMENTAL QUALITY**

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February 10, 2009

Rande Farrow  
Pioneer Concrete & Fuel, Inc.  
P.O. Box 3207  
Butte, MT 59702-3207

Dear Mr. Farrow:

Air Quality Permit #4281-00 is deemed final as of February 10, 2009, by the Department of Environmental Quality (Department). This permit is for a portable truck-mix concrete batch plant. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3490

Kathleen Doran, P.E.  
Environmental Engineer  
Air Resources Management Bureau  
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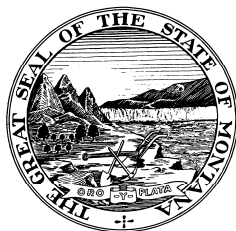
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Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Air Quality Permit #4281-00

Pioneer Concrete and Fuel, Inc.  
P.O. Box 3207  
Butte, MT 59702-3207

February 10, 2009



## AIR QUALITY PERMIT

Issued To: Pioneer Concrete & Fuel, Inc.  
P.O. Box 3207  
Butte, MT 59702-3207

Permit #4281-00  
Application Complete: 12/09/08  
Preliminary Determination Issued: 01/06/09  
Department Decision Issued: 01/22/09  
Permit Final: 2/10/09  
AFS Number: 777-4281

An air quality permit, with conditions, is hereby granted to Pioneer Concrete & Fuel, Inc., hereinafter referred to as "Pioneer" pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Permitted Equipment

Pioneer proposes to operate a portable truck-mix concrete batch plant and associated equipment. A complete list of permitted equipment is contained in Section I.A. of the Permit Analysis to Permit #4281-00.

#### B. Plant Location

The legal description of the initial location of the permitted Pioneer facility is the SW ¼ of Section 30, Township 19 North, Range 29 West, Mineral County, Montana. Permit #4281-00 applies while operating at any location in the State of Montana, except within those areas that have a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana. An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.*

### Section II: Conditions and Limitations

#### A. Emission Control Requirements

1. Pioneer shall install, operate and maintain a fabric filter baghouse and a rubber boot load-out spout (ARM 17.8.752).
  - a. Pioneer shall install, operate, and maintain a fabric filter baghouse to control particulate emissions from the cement and cement supplement silo ventilation opening; and
  - b. Pioneer shall install, operate, and maintain a rubber boot load-out spout to control particulate emissions from the product load-out opening(s) on the portable concrete plant, where cementations and aggregate materials are transferred for mixing.

2. Pioneer shall not cause or authorize to be discharged into the atmosphere from the portable concrete batch plant:
  - a. Any vent emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
  - b. Any fugitive emissions from the source or from any material transfer operations, including, but not limited to, truck loading or unloading, which exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
3. Water shall be available on site at all times and operated, as necessary, to prevent visible fugitive emissions from the conveyors (ARM 17.8.749 and ARM 17.8.752).
4. Pioneer shall not cause or authorize to be discharged into the atmosphere from any street, road, or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes and must take reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
5. Pioneer shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749 and ARM 17.8.752).
6. Total concrete plant production shall be limited to 350,400 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
7. Pioneer shall not operate more than one diesel engine/generator, with a maximum rated design engine input capacity not to exceed 68 horsepower (hp) (ARM 17.8.749).
8. Pioneer shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 Code of Federal Regulations (CFR) 60, Subpart IIII, *Standards of Performance for Stationary Compressions Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engines (ARM 17.8.340, 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).
9. If the permitted equipment is used in conjunction with any other equipment owned or operated by Pioneer, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of emissions during any rolling 12-month time period. The Department shall approve any calculations used to establish production levels (ARM 17.8.749).

B. Emissions Monitoring

1. Pioneer shall inspect the fabric filter baghouse and its vents, which are used for controlling emissions from the silo and weigh hopper, every 6 months of operation to ensure that each collector is operating at the optimum efficiency. Records of inspections, repairs, and maintenance shall be kept for a minimum of 5 years (ARM 17.8.749).
2. Pioneer shall maintain on-site records of inspections, repairs, and maintenance. All

records compiled in accordance with this permit shall be maintained by Pioneer as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

C. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require further testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. If this truck-mix concrete batch plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Pioneer shall maintain on-site records showing daily hours of operation and daily production rates, for the last 12 months. Pioneer shall maintain a list of all sites where the diesel-fired engine/generator was used, including a list of the other permitted sources that the diesel-fired engine was used in conjunction with and the hours it was operated with that source. All records compiled in accordance with this permit shall be maintained by Pioneer as a permanent business record for at least 5 years following the date of measurement, must be submitted to the Department upon request, and must be available at the plant site for inspection by the Department (ARM 17.8.749).
3. Pioneer shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emission inventory request. The request will include, but is not limited to, all sources identified in the most recent emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. Pioneer shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
5. Pioneer shall document, by month, the concrete production from the facility. By the 25<sup>th</sup>

day of each month, Pioneer shall calculate the total amount of concrete produced during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.6. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749)

### Section III: General Conditions

- A. Inspection – Pioneer shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring System (CEMS), Continuous Emission Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Pioneer fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Pioneer of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement, as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If the Board does not issue a stay, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fees – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Pioneer may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of

any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

- J. Pioneer shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Permit Analysis  
Pioneer Concrete and Fuel, Inc.  
Permit #4281-00

I. Introduction/Process Description

Pioneer Concrete and Fuel, Inc. (Pioneer) owns and operates a portable truck-mix concrete batch plant with a maximum production capacity of 40 cubic yards per hour (cy/hr). The plant includes the following equipment:

A. Permitted Equipment

Equipment at the facility includes, but is not limited to the following:

At the request of the permittee, this permit has been written in a de minimis friendly manner.

1. 1969 Ross 100 Concrete Plant with a maximum production capacity of 40 cy/hr – controlled by a 2002 Ideal Manufacturing Silo Baghouse
2. Cement Storage Silo (33 ton) on plant
3. 1988 Caterpillar diesel-fired engine/generator (up to 68 horsepower (hp) maximum capacity)
4. Associated equipment and operations (conveyors, transfer points, 6-cy hopper)

B. Source Description

Pioneer proposes to use this concrete batch plant and associated equipment to provide concrete for use in various construction operations. For a typical operational setup, stockpiles of sand and gravel for concrete production are stored on site. A front-end loader transfers the sand and gravel from the stockpiles to a feed hopper and the material is then conveyed into the concrete batch plant. The cement silo transfers the cement into the batch plant where water is added. The sand (fine aggregate), coarse aggregate, cement, and water are then fed into mixing trucks where the materials are mixed together to form concrete. The concrete is then transported to job site.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1, General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.



2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Montana Clean Air Act, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Pioneer shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs, which can be expected to create emissions in excess of any applicable emissions limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2, Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide.
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>
11. ARM 17.8.230 Fluoride in Forage

Pioneer must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity

limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Pioneer shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions -- Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.324 Hydrocarbon Emissions – Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS).
  - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR 60, Subpart F – Standards of Performance for Portland Cement Plants. This subpart does not apply because the truck-mix plant does not meet the definition of a Portland Cement Plant.
  - c. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. This subpart does not apply because Pioneer does not crush or grind nonmetallic minerals, and therefore does not meet the definition of a nonmetallic mineral processing plant.
  - d. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). NSPS requirements apply to owners or operators or stationary CI ICE that commence construction, modification, or reconstruction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine. CI ICE will be subject to this NSPS standard only if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operated 3 months or more each year.

The proposed 68-hp diesel-fired engine is a CI ICE manufactured before April 1,

2006, and is not a fire pump engine; therefore this engine is not subject to NSPS. Since this permit is written in a de minimis friendly manner, this regulation may apply to engines in the future.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below.
  - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart as listed below.
  - b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source the diesel RICE will be subject to this rule. However, although diesel RICE engines are an affected source, per 40 CFR 63.5490(b)(3) they do not have any requirements unless they are new or reconstructed after June 12, 2006. Any diesel RICE engine operated by Pioneer that is new or reconstructed after June 12, 2006, will be subject to this Maximum Available Control Technology (MACT standard if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Since this permit is written in a de minimis-friendly manner, area source provisions of the Maximum Available Control Technology (MACT) may apply to future engines.

D. ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that Pioneer submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Pioneer submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant

Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 15 tons per year (TPY) of any pollutant. Pioneer has a PTE greater than 15 TPY of particulate matter (PM); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits – General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.
4. ARM 17.8.745 Montana Air Quality Permits – Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units – Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. Pioneer submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Pioneer submitted an affidavit of publication of public notice for the November 6, 2008, issue of *The Missoulian*, a newspaper of general circulation in the city of Missoula and Missoula County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Pioneer of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's

responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase in emissions because of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department for incineration facilities subject to 75-2-215, MCA.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--

Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE greater than 100 tons per year of any pollutant,
  - b. PTE greater than 10 tons per year of any one Hazardous Air Pollutant (HAP), PTE greater than 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule, or
  - c. PTE greater than 70 tons per year of particulate matter with an aerodynamic parameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #4281-00 for Pioneer, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons per year for any pollutant.
  - b. The facility's PTE is less than 10 tons per year for any one HAP and less than 25 tons per year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to any current NSPS standards (but may become subject to 40 CFR 60, Subpart IIII depending on the engine/generator that may be used).
  - e. This facility is not subject to any current NESHAP standards (but may become subject to area source provisions of 40 CFR 63, Subpart ZZZZ depending on the engine/generator that may be used).
  - f. This source is not a Title IV affected source or a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Pioneer is not subject to Title V Operating Permit requirements. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Pioneer will be required to obtain an operating permit.

### III. BACT Determination

A BACT determination is required for each new or altered source. Pioneer shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

#### Diesel-Fired Engine

Because of the limited amount of emissions produced by the diesel-fired engine and the lack of readily available and cost effective add-on controls, add-on controls would be cost prohibitive for the proposed diesel-fired engine. Therefore, the Department determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel-fired engine in this case.

#### Fugitive Emissions

All visible emissions from any cement or cement supplement silo (or vent), truck loading or unloading operations, or any material transferring operations shall meet corresponding emission limitations in Section II.A. of the permit.

Pioneer has proposed to use a fabric filter baghouse for the control of PM<sub>10</sub> from the displaced air from the cement silo. Because Pioneer proposes to use a control technology that is capable of achieving the appropriate emissions standards, no further economic analysis is needed.

Further, Pioneer must take reasonable precautions to limit the fugitive emissions of airborne PM on haul roads, access roads, parking lots, and the general plant area. Reasonable precautions include treating all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary. However, because water is more readily available, is more cost effective, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. Pioneer may, however, use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area.

The Department determined that operating and maintaining a fabric filter baghouse to meet corresponding emission limitations in Section II.A. and using water spray bars and water to control dust emissions from the conveyors/transfer points and maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the concrete batch plant operation.

#### IV. Emissions Inventory

Emission Source	tons/year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Aggregate Delivery to Ground Storage	1.13	0.54	--	--	--	--
Sand Delivery to Ground Storage	0.26	0.12	--	--	--	--
Aggregate Transfer to Conveyor	1.13	0.54	--	--	--	--
Sand Transfer to Conveyor	0.26	0.12	--	--	--	--
Aggregate Transfer to Elevated Storage	0.56	0.27	--	--	--	--
Sand Transfer to Elevated Storage	0.13	0.06	--	--	--	--
Cement Delivery to Storage Silo	0.04	0.01	--	--	--	--
Cement Supplement (Fly ash) Unloading to Silo	0.06	0.03	--	--	--	--
Weigh Hopper Loading of Sand/Aggregate	1.80	0.85	--	--	--	--
Truck Mix Loading	20.02	5.64	--	--	--	--
Diesel Generator	0.66	0.66	9.23	0.74	1.99	0.61
Haul Roads	5.68	1.57	--	--	--	--
<b>Total</b>	<b>31.73</b>	<b>10.41</b>	<b>9.23</b>	<b>0.74</b>	<b>1.99</b>	<b>0.61</b>
<b>Notes:</b> Emissions Inventory reflects throughput of approximately 80 tons/hour concrete, which is equivalent to the permit maximum of 350,400 cubic yards per year (II.A.6) and the 40 cubic yards per hour design capacity of the plant, operated 24 hours per day. Concrete constituent proportions (wet basis) determined assuming one cubic yard of concrete consists of 1,865 lbs coarse aggregate (46%), 1,428 lbs sand (35%), 491 lbs cement (12%), 73 lbs cement supplement (2%), and 167 lbs water (4%) (AP 42, Table 11.12-2, footnote a, 6/06).						

##### **Aggregate Delivery to Ground Storage**

Maximum Process Rate = 37.3 ton/hr (46% of total concrete)

Hours of Operation = 8,760 hr/yr

##### **PM Emissions:**

Emission Factor = 0.0069 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0069 \text{ lb/ton} * 37.3 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.13 \text{ ton/yr}$

##### **PM<sub>10</sub> Emissions:**

Emission Factor = 0.0033 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0033 \text{ lb/ton} * 37.3 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.54 \text{ ton/yr}$

##### **Sand Delivery to Ground Storage**

Maximum Process Rate = 28.56 ton/hr (35% of total concrete)

Hours of Operation = 8,760 hr/yr

##### **PM Emissions:**

Emission Factor = 0.0021 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0021 \text{ lb/ton} * 28.56 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.26 \text{ ton/yr}$

##### **PM<sub>10</sub> Emissions:**

Emission Factor = 0.00099 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.00099 \text{ lb/ton} * 28.56 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.12 \text{ ton/yr}$

##### **Aggregate Transfer to Conveyor**

Maximum Process Rate = 37.3 ton/hr (46% of total concrete)

Hours of Operation = 8,760 hr/yr

##### **PM Emissions:**

Emission Factor = 0.0069 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0069 \text{ lb/ton} * 37.3 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.13 \text{ ton/yr}$



**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0033 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0033 \text{ lb/ton} * 37.3 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.54 \text{ ton/yr}$

**Sand Transfer to Conveyor**

Maximum Process Rate = 28.56 ton/hr (35% of total concrete)

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.0021 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0021 \text{ lb/ton} * 28.56 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.26 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.00099 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.00099 \text{ lb/ton} * 28.56 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.12 \text{ ton/yr}$

**Aggregate Transfer to Storage Bins**

Maximum Process Rate = 37.3 ton/hr (46% of total concrete)

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.0069 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

PM Control Efficiency = 50% (water slurry)

Calculation:  $0.0069 \text{ lb/ton} * 37.3 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} * (1-50/100) = 0.56 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0033 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

PM Control Efficiency = 50% (water slurry)

Calculation:  $0.0033 \text{ lb/ton} * 37.3 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} * (1-50/100) = 0.27 \text{ ton/yr}$

**Sand Transfer to Storage Bins**

Maximum Process Rate = 28.56 ton/hr (35% of total concrete)

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.0021 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

PM Control Efficiency = 50% (water slurry)

Calculation:  $0.0021 \text{ lb/ton} * 28.56 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} * (1-50/100) = 0.13 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.00099 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

PM Control Efficiency = 50% (water slurry)

Calculation:  $0.00099 \text{ lb/ton} * 28.56 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} * (1-50/100) = 0.06 \text{ ton/yr}$

**Cement Delivery to Silo**

Maximum Process Rate = 9.82 ton/hr (12% of total concrete)

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.00099 lb/ton (controlled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.00099 \text{ lb/ton} * 9.82 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.04 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.00034 lb/ton (controlled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.00034 \text{ lb/ton} * 9.82 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

**Cement Supplement Unloading to Silo**

Maximum Process Rate = 1.46 ton/hr (2% of total concrete)

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.0089 lb/ton (controlled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0089 \text{ lb/ton} * 1.46 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.06 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0049 lb/ton (controlled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0049 \text{ lb/ton} * 1.46 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.03 \text{ ton/yr}$

**Weigh Hopper Loading of Sand/Aggregate**

Maximum Process Rate = 80.48 ton/hr

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.0051 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0051 \text{ lb/ton} * 80.48 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.80 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0024 lb/ton (uncontrolled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0024 \text{ lb/ton} * 80.48 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.85 \text{ ton/yr}$

**Truck Mix Loading of Cement/Supplement/Sand/Aggregate**

Maximum Process Rate = 80.48 ton/hr

Hours of Operation = 8,760 hr/yr

**PM Emissions:**

Emission Factor = 0.0568 lb/ton (controlled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.0568 \text{ lb/ton} * 80.48 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 20.02 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.016 lb/ton (controlled, AP-42, Table 11.12-2, 6/06)

Calculation:  $0.016 \text{ lb/ton} * 80.48 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 5.64 \text{ ton/yr}$

**Diesel-Fired Engine/Generator**

Maximum Process Rate: 68 hp

Hours of Operation: 8,760 hr/yr

Number of Engines: 1 engine(s)

**PM Emissions:**

Emission Factor = 0.0022 lb/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, diesel fuel - 10/96)

Calculation:  $0.0022 \text{ lb/hp-hr} * 68 \text{ hp} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.66 \text{ ton/yr}$

**PM<sub>10</sub> Emissions:**

Emission Factor = 0.0022 lb/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, diesel fuel - 10/96)

Calculation:  $0.0022 \text{ lb/hp-hr} * 68 \text{ hp} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.66 \text{ ton/yr}$

**NO<sub>x</sub> Emissions:**

Emission Factor = 0.031 lb/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, diesel fuel - 10/96)

Calculation:  $0.031 \text{ lb/hp-hr} * 68 \text{ hp} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 9.23 \text{ ton/yr}$

**VOC Emissions:**

Emission Factor = 0.00247 lb/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, diesel fuel - 10/96)

Calculation:  $0.00247 \text{ lb/hp-hr} * 68 \text{ hp} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.74 \text{ ton/yr}$

**CO Emissions:**

Emission Factor = 0.00668 lb/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, diesel fuel - 10/96)

Calculation:  $0.00668 \text{ lb/hp-hr} * 68 \text{ hp} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.99 \text{ ton/yr}$

**SOx Emissions:**

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, diesel fuel - 10/96)

Calculation:  $0.00205 \text{ lb/hp-hr} * 68 \text{ hp} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.61 \text{ ton/yr}$

**Haul Roads**

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)

Maximum Days of Operation = 365 days/yr

**PM Emissions:**

Emission Factor =  $k * (s/12)^a * (W/3)^b = 12.46 \text{ lb/VMT}$  (industrial sites, AP 42, Ch. 13.2.2, 11/06)

Where:  $k$  = constant = 4.9 lbs/VMT (Value for  $PM_{30}/TSP$ , AP 42, Table 13.2.2-2, 11/06)

$s$  = surface silt content = 7.1 %

(Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

$W$  = mean vehicle weight = 54 tons (1994 average loaded/unloaded for a 40-ton truck)

$a$  = constant = 0.7 (Value for  $PM_{30}/TSP$ , AP 42, Table 13.2.2-2, 11/06)

$b$  = constant = 0.45 (Value for  $PM_{30}/TSP$ , AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 50% (Water spray or chemical dust suppressant)

Calculation:  $5 \text{ VMT/day} * 365 \text{ days/yr} * 12.46 \text{ lb/VMT} * 0.0005 \text{ ton/lb} * (1 - 50/100) = 5.68 \text{ ton/yr}$

 **$PM_{10}$  Emissions:**

Emission Factor =  $k * (s/12)^a * (W/3)^b = 3.43 \text{ lb/VMT}$  (industrial sites, AP 42, Ch. 13.2.2, 11/06)

Where:  $k$  = constant = 1.5 lbs/VMT (Value for  $PM_{10}$ , AP 42, Table 13.2.2-2, 11/06)

$s$  = surface silt content = 7.1 %

(Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

$W$  = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)

$a$  = constant = 0.9 (Value for  $PM_{10}$ , AP 42, Table 13.2.2-2, 11/06)

$b$  = constant = 0.45 (Value for  $PM_{10}$ , AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 50% (Water spray or chemical dust suppressant)

Calculation:  $5 \text{ VMT/day} * 365 \text{ days/yr} * 3.43 \text{ lb/VMT} * 0.0005 \text{ ton/lb} * (1 - 50/100) = 1.57 \text{ ton/yr}$

**V. Existing Air Quality**

Permit #4281-00 is issued for the operation of a portable truck mix concrete batch plant to be initially located along Interstate 90 at the DeBorgia exit in the SW ¼ of Section 30, Township 19 North, Range 29 West, Mineral County, Montana. This facility would be allowed to operate at this proposed site and any other areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding counties that have a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain  $PM_{10}$  nonattainment areas. The permit contains operational conditions and limitations that would protect air quality for this site and the surrounding area. Also, this facility is a portable source that would operate on an intermittent and temporary basis, so any effects to air quality will be minor and short-lived.

**VI. Ambient Air Quality Impacts**

This permit is for a portable truck mix concrete batch plant to be located in various locations around Montana. The amount of controlled particulate emissions generated by this project should not cause concentrations of  $PM_{10}$  in the ambient air that exceed any set standard. In addition, this source is portable and any air quality impacts will be short-lived.

## VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Pioneer Concrete and Fuel, Inc.  
P.O. Box 3207  
Butte, Montana 59702-3207

*Air Quality Permit Number:* 4281-00

*Preliminary Determination Issued:* January 6, 2009  
*Department Decision Issued:* January 22, 2009  
*Permit Final:* February 10, 2009

1. *Legal Description of Site:* SW1/4 of Section 30, Township 19 North, Range 29 West, Mineral County, MT. The site is locally known as the Rex Lincoln Site, off Interstate 90, at the DeBorgia exit. The proposed concrete batch plant is a portable operation; therefore, this permit would allow Pioneer to operate at any location in the state of Montana, except within those areas having a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana*
2. *Description of Project:* Pioneer owns and operates a portable truck-mix concrete batch plant with a maximum production capacity of 40 cubic yards/hour. The plant includes a 1969 Ross 100 Concrete Batch Plant with a 33-ton 2002 Ideal Manufacturing silo baghouse, 1988 Caterpillar 68-hp diesel-fired engine/generator, 6 cubic yard hopper, and associated material stockpiling, handling and transfer equipment and operations. This plant provides concrete for use in various construction activities.

The proposed action is to issue a Montana Air Quality Permit #4281-00 allowing construction/assembly of the plant initially located at a previously disturbed site. Because this concrete batch plant is portable, it can be expected to move and operate at various locations throughout Montana. This MEPA analysis is intended to evaluate the potential impact of this plant at any operational location.

3. *Objectives of Project:* The objective of construction and operation of the truck-mix concrete batch plant at its initial location is to provide material for support of construction projects in the area.
4. *Alternatives Considered:* In addition to the proposed action, the Department considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit for the proposed portable truck-mix concrete batch plant. The “no-action” alternative is to deny the proposed air quality permit disallowing construction and operation of the portable truck-mix concrete batch plant and would result in existing site conditions, including a previously disturbed/abandoned industrial/commercial area. However, the Department does not consider the “no-action” alternative to be appropriate because Pioneer has demonstrated compliance with all applicable rules and regulations as required for air quality permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A listing of Mitigation, Stipulations and Other Controls:* A list of enforceable conditions, including a Best Available Control Technology (BACT) analysis, would be included in Permit #4281-00.

6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
7. *Potential Physical and Biological Effects:* The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability, and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

#### **Summary of Comments on Potential Physical & Biological Effects:**

The Department has prepared the following comments:

##### **A. Terrestrial and Aquatic Life and Habitats**

Terrestrial and aquatic life would use the areas in which the concrete batch plant would operate. The concrete batch plant operations would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial and aquatic life and habitats would be expected as a result of equipment operations or from pollutant deposition from the portable concrete batch plant.

Impacts on aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be required to be used for pollution control. Since only a minor amount of air emissions would be generated, only minor deposition (see Section 7.F of this EA) would occur.

##### **B. Water Quality, Quantity, and Distribution**

Although there would be an increase in air emissions in the area where the concrete batch plant would operate, there would be little, if any impacts on water quality, quantity, and distribution because of the relatively small size and temporary nature of the operation. Water would be used for making the concrete and for dust suppression on the surrounding roadways and areas of

operation. However, water use would only cause a minor disturbance to these areas, because only relatively small amounts of water would be needed. Overall, the concrete batch plant operations would result in only minor impacts to water quality, quantity, and distribution

#### C. Geology and Soil Quality, Stability, and Moisture

There would be minor impacts to the geology and soil quality, stability, and moisture near the plant's operational area due to facility construction, increased vehicle traffic, the use of water to control dust, and deposition from pollutants from concrete batch operations. As explained in Section 7.F. of this EA, the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the area, and conditions placed in Permit #4281-00 would minimize the impacts from deposition.

#### D. Vegetation Cover, Quantity, and Quality

Because the plant would operate at a previously disturbed/abandoned industrial/commercial site and because the plant would be a relatively minor source of emissions, impacts from the emissions leaving the site and depositing on vegetation would be minor. As described in Section 7.F of this EA, the amount of emissions from the plant would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal (as described in Section 7.B.) and the associated soil disturbance is minimal (as described in 7.C.) corresponding vegetative impacts would be minor.

#### E. Aesthetics

The proposed operation would be visible and would create additional noise while operating in this area. However, Permit #4281-00 would include conditions to control emissions, including visible emissions, from the plant. Also, because the proposed operation would be portable, would operate on an intermittent and seasonal basis, any visual and noise impacts would be minor and short-lived

#### F. Air Quality

The air quality impacts from the proposed concrete batch plant would be minor because Permit #4281-00 would include conditions limiting the opacity from the plant, as well as would require a fabric filter dust collector and a rubber boot load-out spout to control facility emissions. Permit #4281-00 would require water spray, as necessary, and other means to control air pollution. Furthermore, Permit #4281-00 would limit total emissions from the proposed equipment, and any additional equipment owned and operated by Pioneer at the site, to 250 tons per year or less, at any given operating site, excluding fugitive emissions.

#### G. Unique Endangered, Fragile, or Limited Environmental Resources

According to the Montana Natural Heritage Program (MNHP), there are seven resources of concern within the initial proposed area of operation. The search area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. The resources of special concern are the Idaho Giant Salamander, Westslope Cutthroat Trout, Bull Trout, Gray Wolf, Fisher, Wolverine, and Canada Lynx. However, the total property disturbance for the concrete batch plant will be approximately 2 acres and would be located in a previously disturbed/abandoned industrial/commercial site. Therefore, only minor impacts to any unique endangered, fragile, or limited environmental resources would be expected to occur.

#### H. Demands on Environmental Resource of Water, Air, and Energy

Due to the relatively small size of the facility and relatively low potential to emit regulated air pollutants, the concrete batch plant would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Small quantities of water would be used for dust suppression and for concrete batching operations. Approximately 20 gallons of water would be needed for every cubic yard of concrete produced. Water used for dust suppression would control particulate emissions generated through equipment operation and vehicle traffic at the site. Energy requirements would be accommodated through the operation of the proposed diesel-fired engine/generator and would be minor due to the relatively small amount of fuel required to operate the engine/generator. In addition, the concrete batch plant would operate on an intermittent and seasonal basis thereby minimizing energy demands. Further, impacts to air resources from the new equipment would be minor because the source would remain small by industrial standards, would operate on an intermittent and seasonal basis, and would generate relatively minor amounts of regulated pollutants through normal operations. Ambient concentrations of air contaminants would comply with ambient standards.

#### I. Historical and Archaeological Sites

The proposed project is to operate within a previously disturbed industrial site. According to the Montana Historical Society – State Historical Preservation Office (SHPO), there have been no previously recorded sites within the designated area. Furthermore, SHPO has stated that there is a low likelihood that cultural properties will be impacted. Therefore, given the previous industrial activity for this site, the Department believes that no impacts upon historical or archaeological sites would be expected as a result of operating the proposed concrete batch plant.

#### J. Cumulative and Secondary Impacts

The proposed concrete batch plant would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of regulated air pollutants and noise would be generated from equipment operations. Emissions and noise would cause minor disturbance to the surrounding environment because the equipment is relatively small by industrial standards and the facility would be expected to operate in areas designated and typically used for such operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

Overall, any cumulative or secondary impacts to the above-cited physical and biological aspects of the human environment would be minor because the proposed concrete batch plant would typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.



8. *Potential economic and social effects:* The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment			X			Yes
H	Distribution of Population			X			Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

#### **Summary of Comments on Potential Economic & Social Effects:**

##### **A. Social Structures and Mores**

The concrete batch plant operation would cause no disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions, would be located in a previously disturbed industrial site, and would only have temporary and intermittent operations. Additionally, the equipment would be required to operate according to the conditions placed in Permit #4281-00. Thus, no impacts upon social structures or mores are expected to result.

##### **B. Cultural Uniqueness and Diversity**

The cultural uniqueness and diversity of this area would not be impacted by the proposed operation because this site is a previously disturbed industrial site. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. Therefore the predominant use of the surrounding areas would not change as a result of this project and the cultural uniqueness and diversity of the area would not change as a result of this project and the cultural uniqueness and diversity of the area would not be affected.

##### **C. Local and State Tax Base and Tax Revenue**

The operation would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source (minor source) and would have

seasonal and intermittent operations. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would also be portable and the money generated for taxes would be widespread.

#### D. Agricultural or Industrial Production

The concrete batch operations would have only a minor impact on local industrial productions because the facility would be a relatively small industrial source of concrete production and air emissions. As minimal (approximately 2 acres) disturbance is proposed by this action, minimal impacts to agricultural production are expected. Minor impacts to industrial production are expected as the facility described in the proposed action produces a construction material. However, the proposed operation remains relatively small by industrial standards. Overall, potential impacts to agricultural and industrial production are expected to be minor.

#### E. Human Health

Permit #4281-00 would include limits and conditions to ensure that the concrete batch plant would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. The air emissions from this facility would be minimized by the use of a fabric filter dust collector, a rubber boot load-out spout, water and water spray. Therefore, only minor impacts would be expected on human health from the proposed asphalt plant facility.

#### F. Access to and Quality of Recreational and Wilderness Activities

Noise from the facility would be minor because the concrete batch plant would be small by industrial standards and would initially and typically operate in areas used for such operations. As a result, the amount of noise generated from the concrete batch plant operation would be minimal for the area. Any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived. Similarly, because the concrete batch plant would initially and typically operate within areas designated for such operations, impacts to access to recreational and wilderness areas are expected to be minor or insignificant. Overall potential impacts to access to and quality of recreational and wilderness activities are expected to be minor.

#### G. Quantity and Distribution of Employment

The concrete batch plant operation would likely require the existing employees (up to 6) to operate and would have seasonal and intermittent operations. No individuals would be expected to permanently relocate to this area of operation as a result of operating the proposed facility. Therefore, only minor effects upon the quantity and distribution of employment in the area would be expected.

#### H. Distribution of Population

The proposed concrete batch plant operation is small and would likely require existing employees to operate. No individuals would be expected to permanently relocate to this area of operation as a result of operating the concrete batch plant facility, which would have only intermittent and seasonal operations, and is a portable source. Therefore, the proposed facility would not disrupt the normal population distribution.

I. Demands for Government Services

Minor increases would be seen in traffic on existing roadways in the area while the concrete batch plant operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, any demands for government services would be minor.

J. Industrial and Commercial Activity

The concrete batch plant would represent only a minor increase in the industrial activity in the proposed initial or any future area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Very little, if any, additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals in the initial area of operation or any future operating site because Permit #4281-00 would allow for operations at various unknown locations throughout the state. Permit #4281-00 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. Because the facility would be a small and portable source, and would have intermittent and seasonal operations, any impacts from the facility would be minor and short-lived. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

However, if the plant moved to an area classified as nonattainment for PM<sub>10</sub>, the operation would be required to apply for and receive an addendum to Permit #4281-00 prior to operation at the site. An addendum would include more restrictive requirements to protect the nonattainment area from further degradation. The state standards would be protective of any proposed area of operation.

L. Cumulative and Secondary Impacts

The concrete batch plant would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source is a portable and temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility.

Overall, the proposed concrete batch plant operation would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the initially proposed and any future operating site

*Recommendation:* An Environmental Impact Statement (EIS) is not required. Permit #4281-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable air quality rules and regulations. In addition, all impacts associated with the proposed action are expected to be insignificant or minor.

*If an EIS is not required, explain why the EA is an appropriate level of analysis:* All potential effects resulting from construction and operation of the proposed facility are minor; therefore, an EIS is not

required.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Montana Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Heritage Program.

*Individuals or groups contributing to this EA:* Montana Department of Environmental Quality - Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Heritage Program.

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